CALFED BAY-DELTA PROGRAM
PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT
MAIN DOCUMENT

CHAPTER 1. PURPOSE AND NEED

CHAPTER 1.1 INTRODUCTION

Please refer to Section 1.1.2, *Origin of CALFED Bay-Delta Program,* Page 1-1, et seq. The introductory discussion discusses the June 1994 "framework agreement" and the December 1994 "Bay/Delta accord," which clearly stated that the existing California water right statutes, including those representing area of origin protections, would be unaltered in the CALFED process. However, the existing water right structure has not been described in any more than scant detail, and area of origin statutory protections do not appear to have been mentioned at all in the DEIS/EIR. If the selected alternative is to be based on adequate "assurances" to all of the stakeholders, and is to be "implementable," then the DEIS/EIR needs to address these issues in substantially greater detail.

CHAPTER 1.2 PROGRAM PURPOSE AND NEED

Please refer to Section 1.2.1, Page 1-5, et seq. In addressing program purpose and needs, the DEIS/EIR *"mission statement"* observations concerning adoption of a "comprehensive plan," must necessarily address rural, area or origin needs, including but not limited to absolute priority over export water users where demonstration of need is established.

Please refer to Page 1-6. With respect to the so-called *"solution principles,"* the discussion of *"equity,"* and achieving fairness in improvements in all "problem areas," must necessarily be limited by the existing water right priority system, and related area of origin protections. If this is not intended, the DEIS/EIR should expressly so indicate.

CHAPTER 2. PROGRAM DESCRIPTION

CHAPTER 2.3 PHASE II ALTERNATIVES

Please refer to Section 2.3.2.4, *Water Use Efficiency Program,* Page 2-12. The DEIS/EIR discussed the *"policy perspective"* approach used, and further indicates that implementation of efficiency measures occurs *"mostly"* at local and regional levels. The environmental document should at least identify examples of efficiency measures to be handled at local and regional levels, and any other measures inferentially said to be handled on a state-wide basis.

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The further DEIS/EIR discussion of water use efficiency, referring to urban and agricultural conservation as *"locally directed processes,"* represents bureaucratic ambiguity at its best. The DEIS/EIR should explicitly identify what assumptions are made with respect to state regulatory measures that may be contemplated.

Please refer to Section 2.3.3.6, *Implementation Strategies,* Page 2-34. *"Implementation strategies"* are discussed in the DEIS/EIR in terms such as *"assurances package"* and *"tools and mechanisms"* to implement alternatives, and providing that CALFED "must provide adequate assurances that project components will be implemented as planned." While this is a laudable statement with respect to assurances, how such assurances will be defined, and who will define them is unclear, and should be clarified. Furthermore, the "preliminary list" of potential approaches, including state and federal constitutional and statutory amendments, is equally unclear as to potential scope, and is therefore of substantial concern with respect to potential erosion of the existing water right priority system.

CHAPTER 3. SUMMARY COMPARISON OF THE ENVIRONMENTAL CONSEQUENCES

CHAPTER 4 MOVING TOWARDS THE PREFERRED PROGRAM

CHAPTER 4.3 DISTINGUISHING CHARACTERISTICS

Please refer to Page 4-3, *Risk to Export Water Supplies.* The DEIS/EIR should be more clear with respect to how "export" is defined here, particularly in light of the uncertainty caused by the SWRCB Bay/Delta water quality proceeding DEIR, which blurs the term. Should there not also be some discussion of "risks to export areas?"

CHAPTER 4.6 NEXT STEPS

In discussing the "next steps" for identifying a preferred program, the DEIS/EIR indicates a need to answer several questions, including whether the assumptions and technical evaluations used are valid. A more fundamental question should be asked with respect to maintaining the existing priority system and area of origin rights.

CHAPTER 5 INTRODUCTION TO ENVIRONMENTAL ANALYSIS

CHAPTER 5.1 GUIDE TO IMPACT ANALYSIS

CHAPTER 5.2 ESTIMATION OF LAND USE CHANGES DUE TO THE CALFED PROGRAM

Please refer to Section 5.2, *Estimation of Land Use Changes Due to the CALFED Program. "Water Use Efficiency (WUE) measures are not expected to directly impact current land uses therefor, no estimates of land changes relative to this program are presented."* Land and water use are inextricably linked. Implementation of the WUE program, if it is to be an effective program, will

invariably result in changes in land use. Changes will probably take the form of reduced irrigated areas in urban settings. This reality should be reflected in the DEIR/EIS.

CHAPTER 6. PHYSICAL ENVIRONMENT

CHAPTER 6.1 SURFACE WATER RESOURCES

Please refer to Table 6.1-1, "Delta Facility/Greater Export Capacity - potential increase or decrease of water supply due to operational criteria for existing and new Delta facilities or changing conveyance." Export impacts for Alternatives 1A and 1B are less than significant, while all other alternatives are a mixture of less than significant and beneficial. The distinction appears to be very arbitrary, particularly between 1B and 1C. Alternatives 1A and 1B incorporate a number of operational and conveyance measures which would presumably increase export capacity. A classic example is the Tracy/CCF Intertie, and most of the common programs would have similar effects. Potential benefits of the non-canal alternatives should not be minimized.

Please refer to Section 6.1.1.3, *Affected Environment/Existing Conditions--Sacramento River Region,* Page 6.1-22. Please reference and explain historically recognized area of origin protections.

Please note a typographical error in the third paragraph of Page 6.1.57. We believe that the first sentence should read as follows: "*The 4.75 MAF-capacity additional storage....*"

Please note an apparent contradiction in the fifth paragraph of Page 6.1-64. Presumably, the first sentence should read as follows: "*The solubility of oxygen in water is inversely proportionate to water temperature.*"

To summarize Section 6.1.4.4, Page 6.1-72, additional storage would probably result in small beneficial impacts on water supply in the Sacramento River Region. Slight adverse impacts on water supply allocation to the region would probably occur for those alternatives that do not include storage. These impacts should be quantified and presented graphically, as has been done for South of Delta deliveries in Figures 6.1.4-1 and 6.1.4-2.

Expounding upon the above point, Page 6.1-73, second column, third paragraph relates as follows: "*Alternative 3. The water supply impacts of Configuration 3A would be similar to those of Configuration 2A, except that the increased capacity of the isolated facility would enable slightly larger exports to the region.*" Again, how much?

Please refer to Section 6.1.4.6, *Environmental Consequences: Water Supply and Water Management, Mitigation Strategies.* As explained in the subject document, some of the alternatives would adversely affect water supplies in the Sacramento River Region. This redirected impact should be mitigated by giving the Sacramento River Region priority over other regions for deliveries of CVP supplies, over and above existing Area of Origin protections.

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CHAPTER 6.2 GROUNDWATER RESOURCES

Please refer to Section 6.2.1.2, *Groundwater Use,* Page 6.2-4, sixth paragraph, last sentence. "*Also, cities and counties may adopt ordinances giving them authority to manage groundwater, although this has not occurred.*" This statement is factually incorrect. Many Sacramento Valley Region cities and counties have adopted groundwater management ordinances, including Shasta and Tehama Counties. This is an important point from Shasta County's perspective because Shasta County advocates for continued local and regional control of groundwater resources, due to local basin and sub-basin differences. The DEIR/EIR should reflect reality.

Please refer to Section 6.2.1.5, *Groundwater Use, Sacramento Valley Region,* Page 6.2-9, fourth paragraph. "*Groundwater is not widely used in the upper watershed area due to the availability of surface water.*" With a few exceptions, this is not the case, at least in Shasta County. The Redding Groundwater Basin lies at the bottom of the Sacramento Valley, relatively far removed from some of the populated areas in the surrounding foothills. In order to serve our foothill areas, far-flung water distribution systems have been constructed, supplied with treated surface water supplies flowing down from above. Examples include Bella Vista WD, Shasta CSD, Clear Creek CSD, City of Shasta Lake, Centerville CSD, Jones Valley CSA, Keswick CSA, Mountain Gate CSD, and the City of Redding's Buckeye Zone; none of these districts have adequate groundwater supplies within their boundaries and so they have resorted to surface water supplies. Conversely, the City of Anderson, Cottonwood WD, Simpson Paper Company, Sierra Pacific and Wheelabrator are all examples of water districts and users overlying the Redding Groundwater Basin that are entirely dependent upon groundwater. The only other significant diverters within the Redding Basin are the City of Redding and ACID, for whom the document's comment is perhaps at least partially true. However, on balance the document's comment is misleading and incomplete and it should be modified or deleted in its entirety. A more accurate statement would be as follows: "*Surface water is used in the upper watershed area due to the lack of available groundwater. On the valley floor, groundwater is widely used for municipal and industrial uses, owing to its ready availability, superior quality and potential for incremental development of the supply.*"

Please refer to Figure 6.2.1-2, *Areal Extent of Land Subsidence in the Central Valley.* Alluvium is depicted as extending westerly beyond the Central Valley and into Trinity County. The correct location is actually approximately 25 miles east, at the bottom of the Sacramento Valley.

Please refer to Section 6.2.2.2, *Environmental Consequences, Significance Criteria,* Page 6.2-17. In discussing the operation of groundwater storage facilities, the DEIS/EIR should identify both short-term and long-term decline in groundwater levels as significance criteria.

Please refer to Section 6.2.2.4, Page 6.2-23, tenth paragraph. "*The goal of the CALFED Program would be that operation of a groundwater storage facility would not result in a net long-term decrease in storage relative to the No Action Alternative.*" This appears to state that groundwater storage will be operated similar to an off-stream reservoir; water is actively put into storage, through spreading grounds or other means, for later extraction. In order to function in this manner, it is necessary for there to be some existing drawdown of the basin. Otherwise, any water actively put into storage will quickly be lost to nearby streams and rivers. Recent studies have found that the

Redding Groundwater Basin generally has a positive hydraulic gradient towards the Sacramento River and its tributaries; that is, streams overlying the Redding Groundwater Basin are generally gaining streams. Consequently, it appears that CALFED's conjunctive use Program will not affect the Redding Groundwater Basin. If this is indeed so, it should be explicitly stated in the document.

Please refer to Section 6.2.2.4, Page 6.2-26, seventh paragraph. *"Prior to implementation of any groundwater transfers, safeguards would have to be implemented to protect third-party users. For example, a regional entity (perhaps a joint powers agency of Sacramento Valley counties) or separate watershed management entities could be created to study the groundwater resources of a particular area and to provide technical review and advice to local agencies regarding transfers involving groundwater."*

Please refer to Section 6.2.2.4, Page 6.2-25, fifth paragraph. *"Reductions in the amount of wastewater generated due to increased water efficiency could also result in reduced stream flows and a resulting adverse impact on downstream water users who capture those flows. This impact is generally not expected to be significant."* This statement is false within the Sacramento Valley Region. The City of Anderson is a good example. Anderson receives 100% of its supplies from groundwater and discharges one MGD of thoroughly treated wastewater directly into the Sacramento River. Increased water use efficiency in Anderson will reduce Anderson's discharges to the river, thereby reducing flows downstream. Partially compensating will be increased natural discharge from the groundwater basin to the river; however, on balance, the river will lose water during the critical summer months.

Please refer to Section 6.2.2.4, Page 6.2-25, eighth paragraph. *"Adverse groundwater impacts could occur if transfers from a basin exceeded inflows. The reasons that this might occur include inadequate planning, low inflow compared to forecast inflow, or intentional overdrafting of a groundwater basin to achieve regional objectives or economic benefits."* To this list of potential reasons we would add *"intentional overdrafting of a groundwater basin for export to other regions, to achieve economic benefits in the export region."*

While the goal is a good one, a JPA for the entire Sacramento River watershed, of course, is ludicrous. The sheer number of local cities, counties, and water agencies would render such a JPA larger and more cumbersome than the California Legislature. The DEIS/EIR should acknowledge that such an approach is infeasible, while encouraging local and regional multi-agency management efforts, such as those being pursued in Shasta County.

CHAPTER 6.3 GEOLOGY AND SOILS

CHAPTER 6.4 NOISE

CHAPTER 6.5 TRANSPORTATION

CHAPTER 6.6 AIR QUALITY

CHAPTER 7. BIOLOGICAL ENVIRONMENT

CHAPTER 7.1 FISHERIES AND AQUATIC SYSTEMS

CHAPTER 7.2 VEGETATION AND WILDLIFE

Please refer to Section 7.2.1.3, Page 7.2-14, seventh paragraph. "*Remnants of riparian communities along the Sacramento River and tributaries are all that remain of once very productive and extensive riparian areas.*" This statement, and the entire paragraph which contained it, grossly misstates the actual conditions on the ground, at least in Shasta County. Very little riparian habitat has been lost within Shasta County, in stark contrast to the other regions in California. Within Shasta County, loss of riparian habitat has been incidental along the Sacramento River and its major tributaries both above and below Shasta Dam. There are no levees of any significance within Shasta County, nor has there been any significant draining or filling of low-lying lands. A 1995 land use survey by the California Department of Water Resources found that approximately six percent of Shasta County is actively used, divided approximately equally between urban, agriculture and reservoirs. The remainder is Native Vegetation.

Please refer to Section 7.2.2.1, Page 7.2-22, fifth paragraph. "*It is assumed that the distribution and abundance of special-status species is proportional to the amount and quality of habitat available.*" To put this statement another way, species are stressed where there is quality habitat. Actually, the reverse is true: loss of quality habitat is a stressor. Where habitat is maintained, improved or restored there will be more of every type of species, and so fewer species will acquire special-status. Where habitat is lost, species will acquire special-status as protection against extinction. This is an important point because the DEIR/EIS' "look where the problem is not" postulate has apparently guided much of the Ecosystem Restoration Program and Water Quality Program. A more appropriate postulate would be as follows: "Special-status species are associated with a loss of quality habitat for the native species." Much habitat has been lost in the Bay and in the Delta (in stark contrast to the Sacramento River Region) and so there are many special-status species in the Bay-Delta system.

CHAPTER 8 LAND USE, SOCIAL, AND ECONOMICS ISSUES

CHAPTER 8.1 AGRICULTURAL RESOURCES

Please refer to Table 8.1.2-2, *Farm Income and Production Expense in All Regions, 1987 to 1992.* It appears that there is a typographical error in the number of Full Owners of farms in the San Joaquin River Region in 1992.

Please refer to Table 8.1.1-2, Page 8.1.10. There are many significant discrepancies between this table and Section 8.1.2.4, *Sacramento River Region, Existing Conditions, Cropping Patterns and Production Value,* Page 8.1-22. According to the text of Section 8.1.2.4, Rice and Field Crops are the top two crops in the Sacramento River Region. However, per Table 8.1.1-2, neither category is in the top five. It appears, based upon DWR Bulletin 160-93 and other commonly accepted references, that it is Table 8.1.1-2 that is in error. Similarly, *Agricultural Production Costs and Revenues* is internally inconsistent and at odds with Table 8.1.2-2. These drastic discrepancies should be resolved.

In discussing agricultural resources, implicit in the DEIS/EIR discussion is that all agricultural users, even in areas of origin, will be detrimentally affected in nearly all of the alternatives under consideration. Accordingly, the DEIS/EIR appears to disregard existing area of origin protections, where "Surplus" Sacramento River basin water may be exported, but only if all beneficial uses within the Sacramento watershed have been supplied with water. This, too, should be discussed in the CALFED environmental document.

Please refer to Section 8.1.5.6, *Mitigation Strategies,* first bullet. *"Strategies for minimizing the Social/employment impacts as a result of agricultural land conversion include: Continuing the flow of property tax revenues to the local counties...."* Please substitute "*Restoring and supplementing*" for "*Continuing.*"

CHAPTER 8.2 URBAN RESOURCES

Please refer to Table 8.2-2, *Summary to Environmental Impacts Related to Urban Water Supply Economics.* Changes in M&I Water Costs are shown as being "*Less than significant.*" However, the footnote says that "*....The costs of the Water Use Efficiency Program are unknown, and as a consequence, the economic impacts on M&I water costs are also unknown at this time.*" This is a contradiction that must be resolved.

Please refer to Section 8.2, *Water Quality,* Page 8.2-7. *"The water quality program focuses on source control and reducing pollutant releases into the Bay-Delta system and its tributaries. The program is not anticipated to have direct or indirect urban land use impacts in any of the five regions but would benefit M&I water suppliers and users."* The WQP, as proposed, will deal heavily with non-point sources of pollution. This will require the dedication of land to settling basins and other structural measures. It may also affect development as property owners limit parking and other potential non-point sources. Benefits to M&I water suppliers in Shasta County will be negligible. Therefore, the aforementioned DEIR/EIS statements are false.

Please refer to Section 8.2.1.3, *Sacramento River Region,* Page 8.2-20. *"A large share of water users in the region are not metered."* This statement is misleading in that it fails to reveal that most of the unmetered water users are in the Sacramento Metropolitan Area. In Shasta County, all M&I water users connected to public water systems are metered.

CHAPTER 8.3 RECREATIONAL RESOURCES

Please refer to Section 8.3.1.3, *Sacramento River Region,* Page 8.3-17. *"**Recreation Economics.** In 1992, recreation use at 10 recreation areas in the Sacramento River Region totaled approximately 3.6 million visitor days. Recreation benefits are estimated at $40.8 million for 1992."* The source of this data is unknown, but it appears to significantly underestimate the economic impacts of recreation in the Sacramento River Region. A contributing factor is that 1992 was the last year of the drought and so was a terrible year for recreation. Shasta and other major reservoirs had been drawn down severely in 1991 and did not recover until 1993. However, even for this very poor year, $40.8 million is low. More representative data is included in a study financed by the USDA Forest Service and prepared by the University of Georgia in 1994 entitled, *"An Economic*

Assessment of Alternative Water-level Management for Shasta and Trinity Lakes. It determined that the total economic output in Shasta County from Shasta Lake Recreation, under current operating criteria, amounts to $44,770,000 and $24,090,000 in non-drought and drought years, respectively. In some recent years, such as 1995, reservoir conditions have been significantly better than those assumed in the study for a non-drought year, and so economic output may have been approximately $50,000,000 in 1995. This demonstrates that the $40.8 million figure sited in the CALFED document for recreation benefits in the Sacramento River Region in 1992 may be low, and certainly is not representative of a typical recreation year. The document should be revised accordingly.

CHAPTER 8.4 FLOOD CONTROL

CHAPTER 8.5 POWER PRODUCTION AND ENERGY

CHAPTER 8.6 REGIONAL ECONOMICS

Please refer to Section 8.6.1.3, *Sacramento River Region,* Page 8.6-7. "***Historical Perspective.*** *The population increased from about 1.227 million in 1970 to 2.209 million in 1990 for an annual growth rate of 8.26% The growth rate slowed between 1990 and 1995.*" The population figures appear to be reasonable but the growth rate does not correspond to the stated population figures and is clearly too high. Assuming that the population figures are indeed valid, the actual compounded growth rate from 1970 to 1990 would be 3%, still a substantial rate of growth. The correct numbers should be incorporated into the report.

Please refer to Section 8.6.2.4, *Comparison of Program Alternatives to No Action Alternative,* ***Sacramento River Region,*** *Storage and Conveyance,* Page 8.6-13. "*Additional negative regional economic impacts could result from costs of the Water Quality programs... Costs are not yet available, so regional economic impacts cannot be quantified.*" As noted previously, significance of the economic impacts cannot be determined without quantifying the associated costs. It appears that the costs associated with this aspect of the "project" have not been quantified because the nature and scope of the program has not yet been determined. If this is the case then the "project" has not been adequately defined.

CHAPTER 8.7 CULTURAL RESOURCES

CHAPTER 8.8 PUBLIC HEALTH AND ENVIRONMENTAL HAZARDS

Please refer to Section 8.8, *Public Health and Environmental Hazards, Summary,* Page 8.8-1, eighth paragraph which reads: "*The Water Quality Program would have potential beneficial impacts as decreasing mosquito populations reduce the potential for disease transmission...*" We strenuously disagree. The proposed WQP would entail the construction of settling basins and other structures that would be designed to maintain a pool of stagnant water. Many of these structures would, by definition, be in parking lots and other areas in close proximity to population centers. The stagnant water detained within the structures would be mixed with high concentrations of organic material, ideal for mosquito breeding.

Furthermore, all of the proposed mitigations are either contrary to the proposed WQP, or internally contradictory. Section 8.8.2.6, *Mitigation Strategies,* proposes to use pesticides and to reduce the amount of standing water during construction, both of which directly contradict the proposed WQP. It also proposes "*...limiting construction to cool weather periods, when mosquito production is at its lowest; and limiting construction to periods of low precipitation.*" Cool, dry weather is unusual in the Sacramento River Region. Such conditions are unpredictable and usually exist only for a few days or weeks at a time, too short to complete any serious construction projects.

Please refer to Section 8.5.1.3, *Affected Environment/Existing Conditions, Sacramento River Region,* Page 8.8-7. The document accurately reflects the already-serious mosquito-related problems in the Sacramento River Region, but fails to disclose the significant adverse impacts that would result from the Water Quality Program and, to a lesser extent, the Ecosystem Restoration Program. As explained in the document, "*(t)he Sacramento River Region has a relatively high rate of encephalitis among the regions in the study area*" and "*(h)istorically the Sacramento River Region has had the highest rate of malaria of any of the regions under investigation.*" These are serious public health problems that will be significantly worsened by the proposed project.

CHAPTER 8.9 VISUAL RESOURCES

CHAPTER 8.10 ENVIRONMENTAL JUSTICE

CHAPTER 8.11 INDIAN TRUST ASSETS

CHAPTER 9 CUMULATIVE IMPACTS

CHAPTER 10 OTHER CEQA/NEPA TOPICS

CHAPTER 11 COMPLIANCE WITH APPLICABLE LAWS, POLICIES AND PLANS AND REGULATORY FRAMEWORK

Please refer to Section 11.3.9, *Water Rights,* Page 11-12. The DEIS/EIR provides a very summary discussion of water rights in California. Unlike the recognition of the existing water right priority system described in the SWRCB DEIR, there is no such discussion here, let alone a description of area of origin statutory protections. This must occur in order to properly identify and achieve compliance with applicable laws in California.

CHAPTER 12 PUBLIC AND AGENCY INVOLVEMENT